

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Original) A computer instruction comprises:
a move and duplicate instruction that causes a processor to load a first portion of bits of a source into a first portion of a destination register and duplicate that first portion of bits in a subsequent portion of the destination register.
2. (Original) The instruction of claim 1 in which the first portion of the source is 64-bits representing a double floating point data type in a memory location.
3. (Original) The instruction of claim 1 in which the first portion of the source is 64-bits representing a double floating point data type in a source register.
4. (Original) The instruction of claim 1 in which the first portion of the destination register is loaded with bits [63-0] of the first portion of the source and the subsequent portion of the destination register is loaded with bits [63-0] of the first portion of the source.
5. (Original) A method comprising:
in a processor, loading a first portion of bits of a source into a first portion of a destination register; and
duplicating the first portion of bits in a subsequent portion of the destination register.
6. (Original) The method of claim 5 in which the first portion of the source is 64-bits representing a double floating point data type in a memory location.

7. (Original) The method of claim 5 in which the first portion of the source is 64-bits representing a double floating point data type in a source register.
8. (Original) The method of claim 5 in which the first portion of the destination register is loaded with bits [63-0] of the first portion of the source and the subsequent portion of the destination register is loaded with bits [63-0] of the first portion of the source.
9. (Original) A computer program product residing on a computer readable medium having instructions stored thereon which, when executed by the processor, cause the processor to:
load a first portion of bits of a source into a first portion of a destination register; and
duplicate the first portion of bits in a subsequent portion of the destination register.
10. (Original) The computer program product of claim 9 in which the first portion of the source is 64-bits representing a double floating point data type in a memory location.
11. (Original) The computer program product of claim 9 in which the first portion of the source is 64-bits representing a double floating point data type in a source register.
12. (Original) The computer program product of claim 9 in which the first portion of the destination register is loaded with bits [63-0] of the first portion of the source and the subsequent portion of the destination register is loaded with bits [63-0] of the first portion of the source.
13. (Original) A computer instruction comprises:
a move one double floating point and duplicate instruction that causes a processor to load 64-bits of a source and return the 64-bits in a lower half of a destination and a upper half of a destination.

14. (Original) The instruction of claim 13 further comprising:
a source operand; and
a destination operand.
15. (Original) The instruction of claim 13 in which the source operand is a memory location.
16. (Original) The instruction of claim 15 in which the memory location has a 128-bit value that represents a double floating point data type.
17. (Original) The instruction of claim 13 in which the source operand is a 128-bit source register.
18. (Original) The instruction of claim 17 in which the source register has a 128-bit value that represents a double floating point data type.
19. (Original) A method executed in a processor comprising:
loading a first number N of bits from a source into a lower half of a $2N$ wide-bit destination register and in an upper half of the $2N$ -bit wide destination register.
20. (Original) The method of claim 19 in which the source is a memory location and where N is 64 bits.
21. (Original) The method of claim 20 in which the memory location contains a double floating point data type.
22. (Original) The method of claim 19 in which the source is a 128-bit source register and N is 64 bits.

23. (Original) The method of claim 19 in which the 128-bit source register contains a double floating point data type.

24. (Original) A computer program product residing on a computer readable medium having instructions stored thereon which, when executed by the processor, cause the processor to:
load 64-bits from a source in a lower half of a 128-bit destination register and in an upper half of the 128-bit destination register.

25. (Original) The computer program product of claim 24 in which the source is a memory location containing a 128-bit double floating point data type.

26. (Original) The computer program product of claim 24 in which the source is a 128-bit source register containing a 128-bit double floating point data type.

27. (Original) A computer instruction comprises:

a move packed single floating point high and duplicate instruction that causes a processor to load bits [127-0] of a source and return bits [63-32] of the source in bits [31-0] of a 128-bit destination register, bits [63-32] of the source in bits [63-32] of the destination register, bits [127-96] of the source in bits [95-64] of the destination register and bits [127-96] of the source in bits [127-96] of the destination register.

28. (Original) The instruction of claim 27 further comprising:

a source operand field; and
the destination operand field.

29. (Original) The instruction of claim 27 in which the source operand is a memory location.

30. (Original) The instruction of claim 29 in which the memory location has 128-bits representing a packed single floating point data type.
31. (Original) The instruction of claim 27 in which the source operand is a 128-bit source register.
32. (Original) The instruction of claim 31 in which the source register has 128-bits representing a packed single floating point data type.
33. (Original) A method executed in a processor comprising:
 accessing bits [127-0] of a source; and
 returning bits [63-32] of the source in bits [31-0] and bits [63-32] of the destination register; and
 bits [127-96] of the source in bits [95-64] and bits [127-96] of the destination register.
34. (Original) The method of claim 33 in which the source is a memory location.
35. (Original) The method of claim 34 in which the memory location contains a packed single floating point data type.
36. (Original) The method of claim 33 in which the source is a 128-bit source register.
37. (Original) The method of claim 36 in which the 128-bit source register contains a packed single floating point data type.
38. (Original) A computer program product residing on a computer readable medium having instructions stored thereon which, when executed by the processor, cause the processor to:
 load bits [127-0] of a source;

return bits [63-32] of the source in bits [31-0] of a 128-bit destination register;
return bits [63-32] of the source in bits [63-32] of the destination register;
return bits [127-96] of the source in bits [95-64] of the destination register; and
return bits [127-96] of the source in bits [127-96] of the destination register.

39. (Original) The computer program product of claim 38 in which the source is a memory location.

40. (Original) The computer program product of claim 39 in which the memory location contains a packed single floating point data type.

41. (Original) The computer program product of claim 38 in which the source is a 128-bit source register.

42. (Original) The computer program product of claim 41 in which the 128-bit source register contains a packed single floating point data type.

43. (Original) A computer instruction comprises:

a move a packed single floating point low and duplicate instruction that causes a processor to load bits [127-0] of a source and return bits [31-0] of the source in bits [31-0] of a 128-bit destination register, bits [31-0] of the source in bits [63-32] of the destination register, bits [95-64] of the source in bits [95-64] of the destination register and bits [95-64] of the source in bits [127-96] of the destination register.

44. (Original) The instruction of claim 43 further comprising:

a source address field; and
the destination register.

45. (Original) The instruction of claim 44 in which the source is a memory location.
46. (Original) The instruction of claim 45 in which the memory location contains 128-bits representing a packed single floating point data type.
47. (Original) The instruction of claim 43 in which the source is a 128-bit source register.
48. (Original) The instruction of claim 47 in which the source register contains 128-bits representing a packed single floating point data type.
49. (Original) A method comprising:
in a processor, loading bits [127-0] of a source;
returning bits [31-0] of the source in bits [31-0] of a 128-bit destination register;
returning bits [31-0] of the source in bits [63-32] of the destination register;
returning bits [95-64] of the source in bits [95-64] of the destination register; and
returning bits [95-64] of the source in bits [127-96] of the destination register.
50. (Original) The method of claim 49 in which the source is a memory location.
51. (Original) The method of claim 50 in which the memory location contains a packed single floating point data type.
52. (Original) The method of claim 51 in which the source is a 128-bit source register.
53. (Original) The method of claim 52 in which the 128-bit source register contains a packed single floating point data type.

54. (Original) A computer program product residing on a computer readable medium having instructions stored thereon which, when executed by the processor, cause the processor to:

- load bits [127-0] of a source;
- return bits [31-0] of the source in bits [31-0] of a 128-bit destination register;
- return bits [31-0] of the source in bits [63-32] of the destination register;
- return bits [95-64] of the source in bits [95-64] of the destination register; and
- return bits [95-64] of the source in bits [127-96] of the destination register.

55. (Original) The computer program product of claim 54 in which the source is a memory location.

56. (Original) The computer program product of claim 55 in which the memory location contains a packed single floating point data type.

57. (Original) The computer program product of claim 54 in which the source is a 128-bit source register.

58. (Original) The computer program product of claim 57 in which the 128-bit source register contains a packed single floating point data type.

Claims 59-72 canceled.

New claims:

73. (New) A processor comprising:

- a source register;
- a destination register; and

logic to load a first portion of bits of the source register into a first portion of the destination register and duplicate that first portion of bits in a subsequent portion of the destination register.

74. (New) The processor of claim 73 in which the first portion of the source register is 64-bits representing a double floating point data type in a memory location.

75. (New) The processor of claim 73 in which the first portion of the source register is 64-bits representing a double floating point data type in another source register.

76. (New) The processor of claim 73 in which the first portion of the destination register is loaded with bits [63-0] of the first portion of the source register and the subsequent portion of the destination register is loaded with bits [63-0] of the first portion of the source register.

77. (New) A processor comprising:

a source register;

a destination register; and

logic to load 64-bits of the source register and return the 64-bits in a lower half of the destination register and a upper half of the destination register.

78. (New) The processor of claim 77 in which the logic comprises:

a source operand; and

a destination operand.

79. (New) The processor of claim 78 in which the source operand is a memory location.

80. (New) The processor of claim 79 in which the memory location has a 128-bit value that represents a double floating point data type.

81. (New) The processor of claim 79 in which the source operand is a 128-bit source register.

82. (New) The processor of claim 81 in which the 128-bit source register has a 128-bit value that represents a double floating point data type.